Communications Service Authorization

Engineering Survey

Site Survey Preparation

POCs

Latest copy of CSA (Recap)

Copy of Telco drawing/diagram

Request Telco representative during site survey

Review circuits , make notes

Site Survey Preparation (cont'd)

Discussion with base POC on:

- **Basic SOW (BA-SOW)**
- **Site-Specific SOW (SS-SOW)**
- **Special requirement**
- **Quantity Table (Qty Tab)**

Forward all questions to base POC and be ready to discuss during survey

Site Survey

SS-SOW, Para 1.0 Scope:

- **Base Geographic area - Current LEC**

- **Base Switch(es): Verify Hardware (Nortel MSL-100 or Meridian 1; Lucent 5-ESS or Definity G3, System 85) and Software {MSL-10, 11, 12, etc (MSL-100) or Rel 23, 24, etc (Md-1); Rel 10, 11, 12 (5-ESS), Rel 6.3, 7.0 (G-3)} at DCO and remote switches (if apply).**

- **Long Distance Carrier - Verify the current IXC.**
  (Example: FTS-2001 is MCI)

Site Survey (cont'd)

SS-SOW, Para 3.0 Requirements:

Demarcation point: Minimum point of Present (MPOP), the location where the Contractor's responsibility ends and the Government's responsibility begins.

- **Base DCO is the Primary MPOP**

- **A Remote site, extended location could be a secondary MPOP**

Site Survey (cont'd)

- **Relay Rack (RR) in Dial Central Office (DCO):**

1. Check number for RR used by current LEC
2. Check space for RR to be used by the new CSA;
also, check space for future expansion
Ex: 2 relay rack (RR) for Medium or large AF,
1 Relay Rack for ANG, AFRES, RS

Site Survey (cont'd)

Cutover Date:

Verify the expired date of old contract.
Discuss Installation and Cutover date.
Reserve time for cutover.
Example: (It may require 4 to 6 months for CLEC to cutover at an AF base)

Site Survey (cont'd)

SS-SOW: Para 3.1 to 4.0:

Fill in blanks or modify as needed

Site Survey (cont'd)

SS-SOW: Appendix 10

10.0 Local Services required from the contractor at Cutover

10.1 Direct-In-Dial Directory Numbers

Directory numbers reserved from the local exchange Contractor for use by the customer. Numbers are assigned by the customer as required to the stations homed off of the local PABX. Numbers are usually reserved individually or in blocks. These local exchange direct-in-dial numbers permit the local exchange network to

Site Survey (cont'd)

SS-SOW: Appendix 10

10.1 Direct-In-Dial Directory Numbers (cont'd)

- List the total Direct-In-Dial (DID) numbers for the site.

- Number portability - to retain the currently assigned exchange direct-in-dial prefix (NXX) and station directory numbers regardless of the local service provider.

Site Survey (cont'd)

SS-SOW: Appendix 10

10.2 **Exchange and Access Lines**

Provides a communications path connecting the line side of the serving exchange to the line side of the local PBX (base DCO) utilizing either Analog or ISDN PRI for both transmission and receiving.

10.2.1 **Commercial Subscriber Lines**

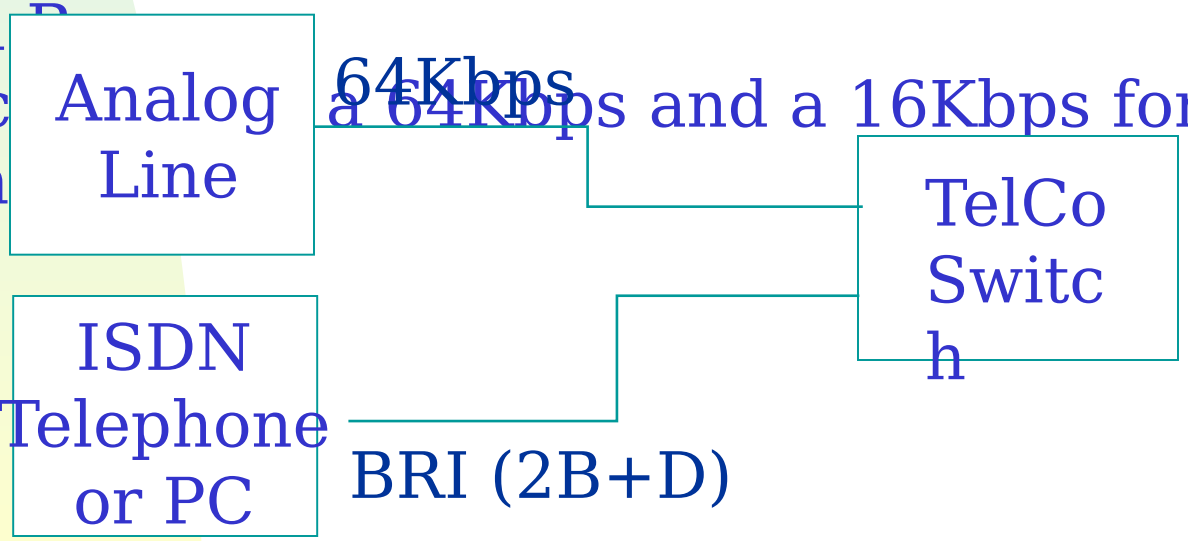
*A subscriber line serving directly from the **LEC**'s central office switch.*

Site Survey (cont'd)

SS-SOW: Appendix 10

10.2.1 **Commercial Subscriber Lines** (cont'd):

- Analog lines: line between TelCo and user at 64Kbps
- ISDN Basic Rate Interface (BRI) lines (2B+D); each B
  c a 64Kbps and a 16Kbps for D chan



Site Survey (cont'd)

SS-SOW: Appendix 10

10.2.1 **Commercial Subscriber Lines** (cont'd):

Basic Services:

- two-way dialing directionalization
- trunk busy tones
- DTMF, MF 2/6 or dial pulse
- automatic trunk group alternate route selection
- block third party billing

Optional features:

- Caller ID, Call Forward , Call Waiting,

Site Survey (cont'd)

SS-SOW: Appendix 10

10.2.1 **Commercial Subscriber Lines** (cont'd):

List out telephone(s) #
List Basic Service and/or additional features

Engineering Support

(cont'd)

SS-SOW: Appendix 10

10.2.2 **Hot Lines:**

Allows designated telephones to place calls to a predetermined destination by lifting the handset and ringing/signaling the destination party.

Site Survey (cont'd)

SS-SOW: Appendix 10

10.3 **Local Exchange and Access Trunks**:

Provides a communications path connecting the trunk side of the serving exchange to the trunk side of the local PBX (base DCO).

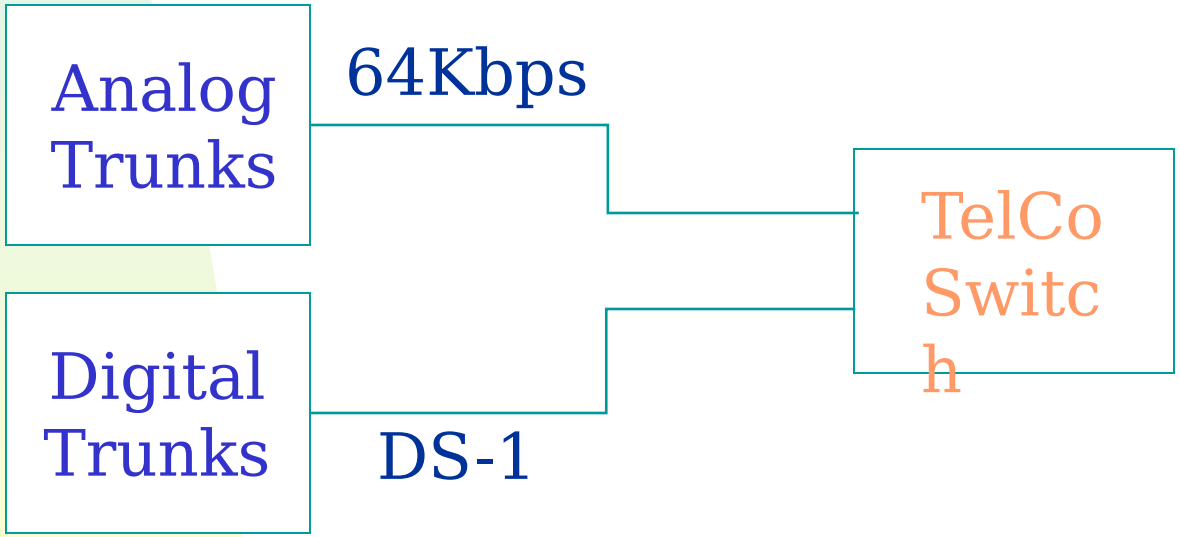
Analog trunk

Digital trunk (DS1 and/or PRI)

Site Survey (cont'd)

SS-SOW: Appendix 10

10.3 **Local Exchange and Access Trunks** (cont'd):



Site Survey (cont'd)

Analog Trunk (DS0, 64 Kbps):

Site Survey (cont'd)

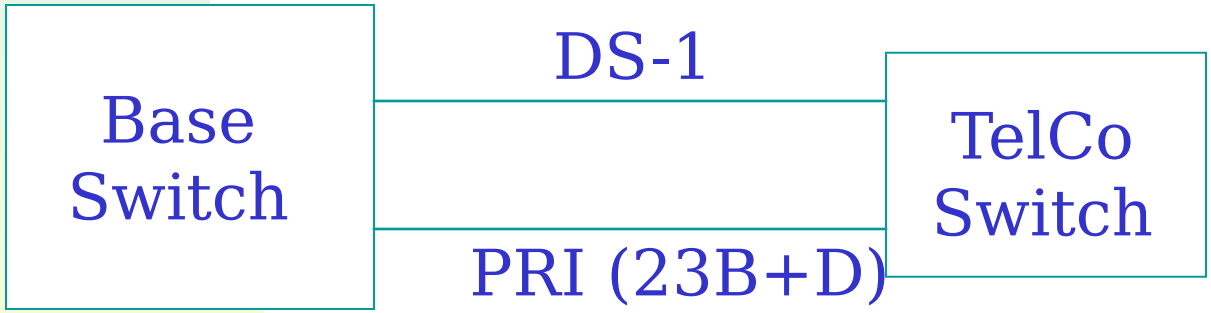
SS-SOW: Appendix 10

Analog Trunk (DS0, 64 Kbps) (cont'd):

- Type: 2-wire or 4-wire
- Directionalization:
  Incoming (IC), Outgoing (OG), or Two Way (2 Way)
- Signaling:
  Supervision Signaling:
  E&M Type 1, 2, … , Reverse Battery, or "not specified"
  Addressing Signaling:
  DTMF (Dual Tone Multi-Frequency), MF (**Multi-Frequency**), or DP (Dial Pulse).

Site Survey (cont'd)

Digital Trunk (DS1 and/or PRI):



Site Survey (cont'd)

SS-SOW: Appendix 10

Digital Trunk (DS1):

- Directionalization:
  Incoming (IC), Outgoing (OG), or Two Way (2-Way)
- Signaling:
  Supervision Signaling:
  E&M Type 1, 2, … , Loop
  Addressing Signaling:
  DTMF (Dual Tone Multi-Frequency), or MF (Multi-
  Frequency (2/6)).
  Start Signaling:

Site Survey (cont'd)

SS-SOW: Appendix 10

Digital Trunk (ISDN **PRI):**

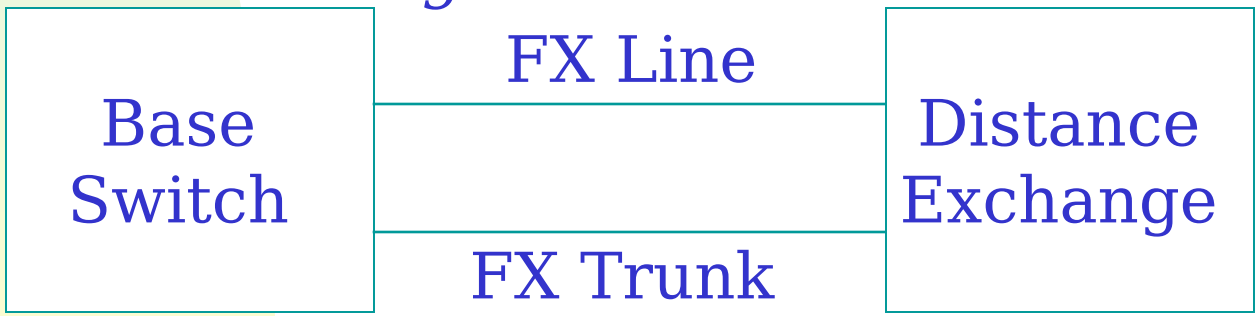
- Directionalization:
  Incoming (IC), Outgoing (OG), or Two Way (2
- Signaling: PRI Q.931
- Count Number of D-channel & Number of B cha

Site Survey (cont'd)

SS-SOW: Appendix 10

10.4 **Foreign Exchange (FX) Lines/Trunks**

Foreign Exchange Line/Trunk provides connection from the base telephone switch to a distant exchange. This allow the base to place a call to the distant exchange as a local call.



Site Survey (cont'd)

SS-SOW: Appendix 10

10.5 **Transport Channel**:

- *Transport Circuits - Transport mileage measures in a direct line (airline mileage) regardless of how the cable is routed, unless otherwise stated.*

10.6 **Data Point-to-Point Circuits**:

- *Data Circuits - Circuit mileage measures in a direct line (airline mileage) regardless of how the cable is routed, unless otherwise*

Site Survey (cont'd)

SS-SOW: Appendix 10

10.7 **Circuit Extension**:

Circuit extension beyond the established MPOP to an user location within the Government property.

Its mileage is measured in a direct line (airline mileage) regardless of how the cable is routed, unless otherwise stated.

Site Survey (cont'd)

SS-SOW: Appendix 10

10.8 **Public listing**:

A listing shall consist of an organization's name, address and telephone number in the local telephone directory. The public listing for the Government organization is under the United States Government section, blue pages or alphabetical section, white pages. Additional, foreign, and cross reference listings are optimal.

- Public listings - list in Government section
- Cross reference listings - list in alphabetical

Site Survey (cont'd)

SS-SOW: Appendix 10

10.9 **Diversity/Diverse Routing**: (slide 44 in Process handout)

Either unidirectional path-switched ring or two fiber bi-directional line-switched ring or four fiber bi-directional line-switched ring.

Dedicated ring or shared ring

Customer and Central Office Node: OC 1, OC-12, OC-48 etc.

Customer and central office ports: Interface to

Site Survey (cont'd)

SS-SOW: Appendix 10

10.9 **Diversity/Diverse Routing** (cont'd)

Fill in table how the vendor will provide Diversity/ Diverse Routing to the base.

Site Survey (cont'd)

Quantity Table

This Section to provide quantity of each required items in the CSA contract. The estimate is for five (5) years.

CLIN Types:

CLIN 1: Existing requirement & non-recurring charge (**Cutover**)

CLIN 2: Future requirement & non-recurrent charge. One time expenses to invoke new services (after Cutover)

Site Survey (cont'd)

Quantity Table (cont'd)

1. Recurring Costs:

   a) Monthly cost b) See form 1218 and CSR

2. Non-recurring Costs

   a) Cutover cost b) See local tariff (Installation, set up charge)

Site Survey (cont'd)

Quantity Table (cont'd)

DID (Data Item Description)

Pre-established form

CDRL - (Contract Data Requirement List)

Modify / customize from DID form to meet customer requirement

Site Survey (cont'd)

Quantity Table (cont'd)

CDRL (and DID form)

CRDL 001- Installation Plan
CRDL 002- Cutover Plan
CRDL 003- Customer Service Record (CSR)
CRDL 004- Communication Service Record
CRDL 005- City Trunks Traffic Study analysis report
CRDL 006- High Bandwidth Transport circuit traffic analysis report
DS1 or higher

Site Survey (cont'd)

Quantity Table (cont'd)

Number Portability (SS-SOW 3.1.6): Fill in the total DID Directory Number required for the site. Also, for the Commercial Subscriber Directory Lines Number.

Note: DID Block increment by block of 100 or 20 numbers

DID Commercial Business line increment by Unit= 1

Site Survey (cont'd)

Quantity Table (cont'd)

Direct inward Dial Number Portability (SS-SOW 10.1): Discuss with base about a particular or combination number portability of:

- Direct-Inward-Dial (DID) Directory Block numbers
- An individual commercial subscriber line
- All Commercial subscriber lines

Site Survey (cont'd)

Quantity Table (cont'd)

Commercial Subscriber Lines (SS-SOW 10.2.1)

A subscriber line serving directly from the Contractor's central office switch.

Analog **OR** **ISDN Basic Rate Interface (BRI)**

Local Usage for Measured Rate Services ((Commercial) Subscriber Lines and Trunks) (BA-SOW 30.1.6)

Site Survey (cont'd)

Quantity Table (cont'd)

Optional (Commercial) Subscriber Lines Features (SS-SOW 3.1.2.3)

Centrex Lines: Customize the SS-SOW if base requirement exists.

3 things: Analog lines ISDN lines Data base update

Optional Centrex Lines Features (SS-SOW 3.1.2.3)

Site Survey (cont'd)

Quantity Table (cont'd)

911 Trunk (SS-SOW 3.1.13): Discuss with base on how 911/311 services will be provided. Also, for the Commercial Subscriber lines. See slide 46 in Process handout (Routing to 911 local city PSAP or Routing to 911 Base PSAP)

Foreign Exchange Lines (SS-SOW 10.4.1):

2-Wire, analog loop or 2-Wire, Ground Start, DTMF

Foreign Exchange Lines/Trunks Usage
(Measured rate)

Site Survey (cont'd)

Quantity Table (cont'd)

Foreign Exchange Lines (cont'd):

Foreign Exchange Analog Trunks (SS-SOW 10.4.1)

Foreign Exchange Digital Trunks (SS-SOW 10.4.2)

For both **FX Analog/Digital Trunk:** Each channel shall include

1. Direction: (incoming, outgoing, or 2 way) and **Mileage**
2. Type: 2-Wire or 4-Wire

Site Survey (cont'd)

Quantity Table (cont'd)

Local Exchange Access Analog Trunks (SS-SOW 10.3.1):

Count # of Channel with Direction (IC, OG, or 2 way)

Count # of Channel with Type (2-wire or 4-wire)

Count # of Channel with Supervision (E&M, Rev. Battery, or Loop)

Count # of Channel with Addressing Signaling (DP, DTMF, or MF (2/6))

Count # of Channel with Start Signaling (WS, GS, or

Site Survey (cont'd)

Quantity Table (cont'd)

Local Exchange Access Digital Trunks (SS-SOW 10.3.2):

Number of DS-1 Interface

Count # of Channel with Direction (IC, OG, or 2 way)

Count # of Channel with Type (2-wire or 4-wire)

Count # of Channel with Supervision (E&M or Loop)

Count # of Channel with Addressing Signaling (DTMF or MF (2/6))

Count # of Channel with Start Signaling (Wink Start)

Site Survey (cont'd)

Quantity Table (cont'd)

Local Exchange Access Digital ISDN PRI (SS-SOW 10.3.3):

Number of ISDN Primary Rate Interface

Count # of D Channel

Count # of B Channel with Direction (IC, OG , or 2 way)

Count # of Channel Sub-Group

Site Survey (cont'd)

Quantity Table (cont'd)

Transport Channels (SS-SOW 10.5)

Note: Transmission speed, termination, and mileage

Data Point-to-Point Circuits (SS-SOW 10.6)

Note: Transmission Speed, termination and Mileage

Circuits Extension (SS-SOW 10.7)

Site Survey (cont'd)

Quantity Table (cont'd)

Diversity/Diverse Routing (SS-SOW 3.1.10 & 10.9)

Operator Assistance (SS-SOW 3.1.11)

Directory Assistance (SS-SOW 3.1.12)

Public Listing (SS-SOW 10.8)

Site Survey (cont'd)

Quantity Table (cont'd)

Intra-LATA Toll Call Services (BA-SOW 30.1.20)

Note: In many cases the cost of the FTS2000/2001 is more economical than intra-LATA toll calls.

Intra-LATA Collect Call Services (BA-SOW 30.1.21)

Site Survey (cont'd)

Quantity Table (cont'd)

Completion of Quantity Table. Total estimate will be calculated by the excel sheet.